

REMARKS

This Amendment and Response is submitted in reply to the Office Action dated July 5, 2006, in which the Examiner:

indicated that claims 2, 3, 5 and 6 would be allowable if rewritten in independent form;

rejected claim 8 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,476,408 to Honsinger; and

rejected claims 1, 4, 7 and 9 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Application Publication No. 2003/0071533 to Kikuchi et al. in view of U.S. Patent No. 6,486,581 to Miyashita et al.

Applicant respectfully traverses the rejections below. Claims 1-9 are currently pending. The current Amendment amends claims 6 and 9, and cancels claim 8, leaving claims 1-7 and 9 pending. Claims 1 and 9 are independent claims.

As claim 8 has been cancelled, Applicant respectfully submits that the rejection of claim 8 under 35 U.S.C. § 102(b) as anticipated by Honsinger is moot, and should be withdrawn.

Claims 1 and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kikuchi in view of Miyashita. To support a rejection under 35 U.S.C. § 103, the Examiner must establish a prima facie case of obviousness. A prima facie case of obviousness is not established unless the prior art references, alone or in combination, teach or suggest each and every claim recitation.

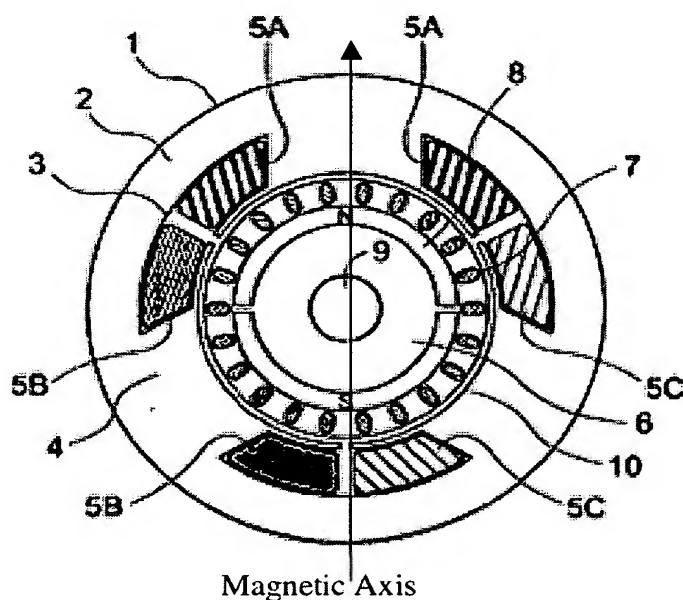
Applicant's claim 1 recites a rotor for an electric motor wherein the diameter of the rotor is larger along the magnet axis than along the neutral axis. Applicant's claim 9 includes similar recitations.

Kikuchi does not teach or suggest each and every recitation of Applicant's claims 1 or 9. For instance, Kikuchi does not teach or suggest a rotor wherein the diameter of the rotor is larger along the magnet axis than along the neutral axis. In the current Office Action (see Office Action, p. 3), the Examiner notes this deficiency of Kikuchi and looks to Miyashita to supplement the teachings of Kikuchi.

However, Applicant respectfully submits that Miyashita fails to remedy the deficiencies of Kikuchi, at least in that Miyashita also fails to teach or suggest a rotor wherein the diameter of the rotor is larger along the magnet axis than along the neutral axis. Applicant cannot find that Miyashita ever defines the polarity of its permanent magnets 8, thus apparently failing to teach or suggest where the magnetic and neutral axes would lie, much less that the magnet axis would lie along the salient pole sections 9.

As the Examiner bears the burden for establishing a prima facie case of obviousness, Applicant respectfully submits that the mere allegation that Miyashita teaches "a diameter of the rotor is larger along the magnet axis than along the neutral axis" is insufficient to meet that burden. If the Examiner wishes to maintain this ground of rejection, Applicant respectfully requests that the Examiner make particular reference to where Miyashita teaches or suggests where the magnetic axis of the rotor lies. (See also, 37 C.F.R. § 1.104(c)(2).)

Even if Miyashita's salient pole sections 9 were added to Kikuchi's rotor 10, Applicant respectfully submits that Kikuchi's magnetic axis would still not lie along the salient pole sections 9. Referring to Kikuchi's Figure 1, the upper permanent magnet 8 has north polarity and the lower permanent magnet 8 has a south polarity, thus the magnetic axis of the rotor 10 is as shown below:



Thus, if salient poles were somehow added to Kikuchi's rotor 10 between the permanent magnets 8 (as in Miyashita; see, e.g., Figure 2), the magnetic axis would still not lie along the salient poles and the diameter of rotor 10 would be, if anything, smaller along the magnetic axis – unlike the rotor recited by Applicant's claims 1 and 9.

At least because the Examiner has not established a prima facie case of obviousness, and because Kikuchi and Miyashita, even if combined, would not teach or suggest each and every recitation of Applicant's claims 1 or 9, Applicant respectfully submits that the rejection of claims 1 and 9 under 35 U.S.C. § 103(a) as unpatentable over Kikuchi in view of Miyashita is improper, and should be withdrawn.

Claims 4 and 7 were also rejected under 35 U.S.C. § 103(a) as unpatentable over Kikuchi in view of Miyashita. Claims 4 and 7 both depend directly from claim 1, and include additional recitations thereto. Accordingly, Applicant respectfully submits that the rejection of claims 4 and 7 under 35 U.S.C. § 103(a) as unpatentable over Kikuchi in view of Miyashita is improper for at least the same reasons stated in connection with claim 1, and should be withdrawn.

Further regarding claim 4, claim 4 depends directly from claim 1 and additionally recites that in the cross-section the rotor has the shape of an ellipse, whose main axis covers the magnet axis and whose auxiliary axis covers the neutral axis. As the Examiner noted (see Office Action, p. 3), Kikuchi does not teach or suggest a rotor whose cross-section has the shape of an ellipse. Applicant respectfully submits that Miyashita also fails to teach or suggest a rotor whose cross-section has the shape of an ellipse. Applicant particularly notes that the mere addition of protruding salient poles to an otherwise circular rotor (see, e.g., poles 9 on rotor core 7 in Miyashita's Figure 2) does not result in an elliptical cross-section.

Thus, neither Kikuchi nor Miyashita, nor the combination thereof, teaches or suggests the additional claim 4 recitations. Accordingly, Applicant respectfully submits that the rejection of claim 4 under 35 U.S.C. § 103(a) as unpatentable over Kikuchi in view of Miyashita is improper for at least this additional reason, and should be withdrawn.

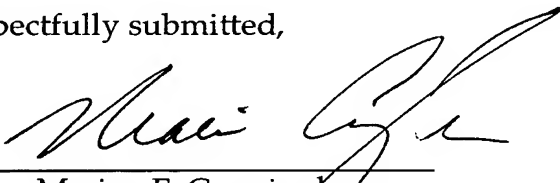
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Having traversed each and every claim rejection, Applicant respectfully requests that the rejections of claims 1, 4 and 7-9 be withdrawn, and claims 1-7 and 9 be passed to issue.

Applicant respectfully submits that nothing in the current Amendment constitutes new matter. The amendment to claim 6 removed a reference numeral from that claim, in conformity with U.S. practice. The amendment to claim 9 corrected an obvious typographical error.

Applicant believes no fees are due in connection with this Amendment and Response. If any fees are deemed necessary, authorization is hereby granted to charge any such fees to Deposit Account No. 13-0235.

Respectfully submitted,

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